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Docket No.: 52-026

ND-23-0602 10 CFR 52.99(c)(1)

U.S. Nuclear Regulatory Commission Document Control Desk Washington, DC 20555-0001

Southern Nuclear Operating Company
Vogtle Electric Generating Plant Unit 4

ITAAC Closure Notification on Completion of ITAAC 2.2.05.07c [Index Number 270]

Ladies and Gentlemen:

In accordance with 10 CFR 52.99(c)(1), the purpose of this letter is to notify the Nuclear Regulatory Commission (NRC) of the completion of Vogtle Electric Generating Plant (VEGP) Unit 4 Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) Item 2.2.05.07c [Index Number 270]. This ITAAC confirms that the heat loads within the main control room (MCR), the I&C equipment rooms, and the Class 1E dc equipment rooms are within design basis assumptions to limit the heatup of the rooms. The closure process for this ITAAC is based on the guidance described in Nuclear Energy Institute (NEI) 08-01, "Industry Guideline for the ITAAC Closure Process Under 10 CFR Part 52," which was endorsed by the NRC in Regulatory Guide 1.215.

This letter contains no new NRC regulatory commitments. Southern Nuclear Operating Company (SNC) requests NRC staff confirmation of this determination and publication of the required notice in the Federal Register per 10 CFR 52.99.

If there are any questions, please contact Kelli Roberts at 706-848-6991.

Respectfully submitted,

Jamie M. Coleman

Regulatory Affairs Director Vogtle 3 & 4

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Enclosure: Vogtle Electric Generating Plant (VEGP) Unit 4

Completion of ITAAC 2.2.05.07c [Index Number 270]

JMC/CMK/sfr

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cc:

Regional Administrator, Region II Director, Office of Nuclear Reactor Regulation (NRR)

Director, Vogtle Project Office NRR Senior Resident Inspector – Vogtle 3 & 4

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Vogtle Electric Generating Plant (VEGP) Unit 4 Completion of ITAAC 2.2.05.07c [Index Number 270] U.S. Nuclear Regulatory Commission ND-23-0602 Enclosure Page 2 of 5

ITAAC Statement

Design Commitment

7.c) The heat loads within the MCR, the I&C equipment rooms, and the Class 1E dc equipment rooms are within design basis assumptions to limit the heatup of the rooms identified in Table 2.2.5-4.

Inspections/Tests/Analyses

An analysis will be performed to determine that the heat loads from as-built equipment within the rooms identified in Table 2.2.5-4 are less than or equal to the design basis assumptions.

Acceptance Criteria

A report exists and concludes that: the heat loads within rooms identified in Table 2.2.5-4 are less than or equal to the specified values or that an analysis report exists that concludes:

- The temperature and humidity in the MCR remain within limits for reliable human performance for the 72-hour period.
- The maximum temperature for the 72-hour period for the I&C rooms is less than or equal to 120°F.
- The maximum temperature for the 72-hour period for the Class 1E dc equipment rooms is less than or equal to 120°F.

ITAAC Determination Basis

An analysis was performed based on measured test data to confirm that the heat loads from asbuilt equipment within the Main Control Room (MCR), Instrument and Controls (I&C) equipment rooms, and the class 1E direct current (dc) equipment rooms are less than or equal to the design basis assumptions identified in Combined License (COL) Appendix C, Table 2.2.5-4 (Attachment A) or that an analysis report exists that concludes:

- The temperature and humidity in the MCR remain within limits for reliable human performance for the 72-hour period.
- The maximum temperature for the 72-hour period for the I&C rooms is less than or equal to 120°F.
- The maximum temperature for the 72-hour period for the Class 1E dc equipment rooms is less than or equal to 120°F.

MCR heat load testing for data collection was performed by installing 17 temperature dataloggers. MCR temperature and relative humidity were recorded for a minimum of 6 hours, and access to the MCR was restricted during the test. The Nuclear Island Nonradioactive Ventilation System (VBS) system was balanced and operating normally prior to commencing the test. To test the MCR heat loads, the MCR boundary was manually isolated by actuating the MCR Emergency Habitability System (VES), causing the VBS system to secure. Designated heat loads were shed per design during the test, and temporary heat sources (as necessary) were used to simulate the heat load of 11 MCR occupants for the duration of the test. Data

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collection results, along with Attachment A, were used as input to perform an analysis and create an analysis report (Reference 1) that concludes that the temperature and humidity in the MCR remain within limits for reliable human performance for the 72-hour period.

The I&C equipment rooms and Class 1E dc equipment rooms heat load testing for data collection was performed by equipping each room with temperature dataloggers, access to the room was restricted, ventilation supply and exhaust dampers were closed, all equipment in the rooms was energized and temperature data was recorded for a minimum of 6 hours. Data collection results, along with Attachment A, were used as input to perform an analysis and create an analysis report (Reference 1) that concludes the maximum temperature for the 72-hour period for the I&C equipment rooms and Class 1E dc equipment rooms was less than or equal to 120°F.

Heat load analysis based on test data took into account the rooms' configuration and heat transfer characteristics (design basis assumptions) to conclude that:

- The temperature and humidity in the MCR remain within limits for reliable human performance for the 72-hour period.
- The maximum temperature for the 72-hour period for the I&C rooms is less than or equal to 120°F.
- The maximum temperature for the 72-hour period for the Class 1E dc equipment rooms is less than or equal to 120°F.

The resultant analysis is documented in Reference 1 confirming that an analysis report exists and concludes that:

- The temperature and humidity in the MCR remain within limits for reliable human performance for the 72-hour period.
- The maximum temperature for the 72-hour period for the I&C rooms is less than or equal to 120°F.
- The maximum temperature for the 72-hour period for the Class 1E dc equipment rooms is less than or equal to 120°F.

Reference 1 is available for NRC inspection as part of the Unit 4 ITAAC 2.2.05.07c Completion Package (Reference 2).

ITAAC Finding Review

In accordance with plant procedures for ITAAC completion, Southern Nuclear Operating Company (SNC) performed a review of all findings pertaining to the subject ITAAC and associated corrective actions. This review found there were no relevant ITAAC findings associated with this ITAAC. The ITAAC completion review is documented in the ITAAC Completion Package for ITAAC 2.2.05.07c (Reference 2) and is available for NRC review.

ITAAC Completion Statement

Based on the above information, SNC hereby notifies the NRC that ITAAC 2.2.05.07c was performed for VEGP Unit 4 and that the prescribed acceptance criteria were met.

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Systems, structures, and components verified as part of this ITAAC are being maintained in their as-designed, ITAAC compliant condition in accordance with approved plant programs and procedures.

References (available for NRC inspection)

- 1. SV4-VES-T2R-001, Vogtle Unit 4 Six Hour Main Control Room Heatup Summary Report, Rev. 0
- 2. 2.2.05.07c-U4-CP-Rev0, ITAAC Completion Package

Attachment A *Excerpt from COL Appendix C Table 2.2.5-4

*Room Name	*Room Number	*Heat Load 0 to 24 Hours (Btu/s)	*Heat Load 24 to 72 hours (Btu/s)
MCR Envelope	12401	23.5 (hour 0 to 0.5) 14.5 (hour 0.5 to 3.5) 4.75 (hour 3.5 through 24)	3.95
I&C Rooms	12301	3.50	1.10
	12302	3.20	2.50
	12304	4.30	3.20
	12305	4.20	1.50
dc Equipment Rooms	12201	2.00	2.00
	12203	3.30	3.30
	12205	2.40	2.40
	12207	3.45	3.45